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Worpie Scad Isleworth Middlesex TW77AU England Tel:015686831 Telex:897918SSPLASG Telegrams Stanmith Isleworth England

## THE COMPLETE RANGE

#### VITRONE PYC

#### I. Calendered

Clear, tinted clear, translucent and opaque colours.

Tough, non-toxic, easily worked.

Suitable for all packaging and general thermoforming work.

Width range 25 to 1000 mm.

Thickness range 0.075 to 1.00 mm.

Cut panels up to 3000 × 1000 mm.

#### 2. Laminated

Clear or white pvc laminated to pe or Surlyn (pvdc/pe complex from Dow Chemical Corp) for CAP and MAP.

PVC range as above.

Polythene available as 75 or 100 micron.

#### 3. Extruded

- Vitraplus clear, opal and bronze for domelights, rooflights and space glazing.
- Vitrone E industrial in RII53 dark grey and RII17 light grey for all chemical and food handling applications.

Vitrone E is non-toxic.

 Vitrone E colours – colour matched in minimum 5000 kg lots.

Extruded sheet thicknesses: 1.00 to 12.00 mm.

Extruded sheet sizes

 $2440 \times 1220 \text{ mm}$ 

3000 × 1220 mm

3000 × 1500 mm

6000 × 1500 mm.

Cut panels available for minimum 50 sheet lots. Vitraplus is protected with strippable pe film as standard. This film is available for Vitrone E on request.

#### 4. Pressed

Clear wire laminate.

To complement Vitraplus where ultimate fire penetration resistance is needed. (BSS 476 part 3).

Sheet sizes:  $2440 \times 1220 \, \text{mm}$ 

 $: 3600 \times 1500 \text{ mm}.$ 

Thicknesses: 1.5, 3.0, 4.5 and 6.0 mm.

These sheets are available untrimmed.

 General industrial intesset sheet produced to customers individual needs.

Customers own material may be included if relevant as a customers/fabrication.

Sheet Size: 1372 × 915 mm. Thickness range: 1.00 to 6.00 mm.

## VITRALENE POLYPROPYLENE

The range of homopolymer and copolymer in natural, beige grey and black is available as both pressed block and extruded theer.

Special colours, nodular finish, special formulations for specific applications and regenerated material are also available as pressed block.

#### 1. Vitralene pressed block

Size range

1000 × 1000 mm

2000 × 1000 mm

 $3050 \times 1220 \text{ mm}$ 

 $3050 \times 1525$  mm.

Thickness range: 1.6 to 75 mm.

Exception 1000 × 1000 mm is available from 60 to 120 mm thickness.

#### 2. Vitralene E extruded sheet

Sheet size

2440 × 1220 mm

3000 × 1220 mm

3000 × 1500 mm

 $6000 \times 1500$  mm.

Thickness range: 1.00 to 12.00 mm.

#### VITRATHENE POLYTHENE

Vitrathene pressed block and extruded sheet is available in the same range of thicknesses and sheet sizes as Vitraiene and Vitralene E polypropylene.

However the most important aspect of the Vitrathene range is the wide variety of polythene types available to satisfy every technical requirement.

The range comprises.

Low density

density 0.920

2. Linear low density

- density 0.310

3. High density

- density 0.753

- 4. High molecular weight high density also called 1500 grade" density 0.950.
- 5. Ultra high molecular weight high density also carled "1000 grade" density 0.940.
- Regenerated ultra high molecular weight high censity grade black PM39 – density 0.940.
- Filled low and high density materials. Fillers include boron, boron carbide, lithium saits, glass, tungsten.
  For full details please see 'Vitrite' leaflet.

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- 8. Flame proof material. Modification to reduce flammability can be carried out to customer specification.
- Pink grade 2SSAO low density polythene in flesh colour for orthopaedic splints – the original material developed in conjunction with Dr. Scales – the world leader for 40 years.
- 10. Other orthopaedic polyolefines please see separate
- Specialist materials can be processed to customer requirements to satisfy particular technical specifications. Our technical department can advise on all aspects of this work.

In addition Vitrathene polythene is available as rod, block and massive moulding in low density only as follows:-

I. Rod

From 25 to 1000 mm diameter and lengths from 300 mm upwards in natural and block.

2. Block

In standard size  $500 \times 500$  mm and thickness from 100 to 1000 mm in natural and block.

#### 3. Massive mouldings

Up to 1500 mm diameter and 1500 mm height can be manufactured to customer requirement and machined to drawing.

#### 4. Specialist materials

Stanley Smith & Co produce sheet, block and mouldings in a variety of specialist materials for technically demanding applications and to customer requirements. Among the specialist materials produced are PETG for orthotics and prosthetics.

Surlyn for prosthetics.

Nylon 6 for heavy duty application.

High temperature thermosets for radiation protection and neutron absorption up to 300°C maximum.

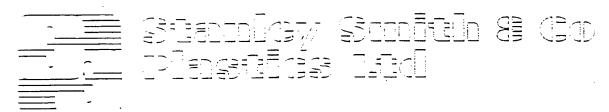
Pourable neutron shielding.

Filled and modified materials for many applications in the field of nuclear science and research.

Regenerated polythene and polypropylene materials for heavy industrial application.

Our technical department is always available to assist in choosing or developing the correct material for the application being undertaken.





Morple Road Isleworth Middlesex TW77AU England Tel:015686831 Telex: 397918 SS PLASIG Telegrams: Stanmith Isleworth England

# rigid P.V.C. sheet

Stanley Smith & Co specialise in the production of rigid p.v.c. sheet by calendering, continuous laminating, pressing and extrusion.

#### WITHOME DALENDERED SHEET

Satisfying all European regulations covering direct contact with foodstuffs, Vitrone calendered sheet is available in a wide range of formulations to satisfy the requirements of all markets.

A. Clear

- standard high impact for all normal duty and impact resistant applications.
- ultra high impact for deep freeze packaging and the packing of extra heavy items.
- B. Colours
- a wide range of tinted and opaque colours to satisfy uses as diverse as video cassette cases to pre-cooked poultry packs.
- C. Chocolate and red -
- the oldest established materials, satisfying all market requirements for taint free sophisticated packaging.

Thickness range: 0.075 to 1.00 mm Width range: 25 to 1000 mm Roll weights upto 500 kg Cut sheet upto 3000 x 1000 mm

MIRCHELAMINATED SHEEF

PVC/PE and PVC/Surlyn (the pvdc complex material from Dow Chemical Corp.) in a wide range of thickness combinations is produced to satisfy the needs of the CAP and MAP market.

Any pvc item from the range of calendered sheet can be laminated to either 70 to 100 micron pvc or to standard range Surlyn.

WITSONE PRESSED SHEET

A specialist range of pressed rigid pvc sheet is produced to customer requirement. Customer's own material can also be processed aither wholly or in part with Vitrone formulations. Our technical department will advise on the best salutions to the needs of this market.

Standard size: 1372 x 945 mm Thickness range: 0!259 to 6.00 mm



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ਕ g EXHIBIT 2

# Amari PLASTICS PLC



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### Polyolefins

#### DESCRIPTION

Polyclefin grouping of thermoplastics includes polypropylene, high and low density polythene and high and ultra high molecular weight polythene. The prime characteristics are similar all having low density, good resistance to chemical attack and very good electrical insulation. All are available in the form of sheets, rods and blocks.

JHMW (ultra high molecular weight) polythene exhibits excellent wear properties due to its low coefficient of friction (second only to PTFE) and the highest impact strength of any thermopastic. UHMW performs well even at cyrogenic, emperatures. It has approval from the U.S. Food and Drugs Administration for use with foodstuffs.

Both high density and low density polythene are corrosion resistant with good impact strength but low compressive strength. Maximum service temperature is about 60°C for LD and 80°C for HD.

Polypropylene is widely used in chemical treatment plant as it is resistant to attack by almost all organic and inorganic compounds up to 105°C. The exceptions are aromatic hydrocarbons and chlorinated solvents which cause swelling and norganic oxidising agents such as liquid bromide and furning nitric acid.

#### APPLICATION

The maximum service temperature of more than 100°C makes polypropylene a useful lining material for food preparation or medical rooms where steam sterilizing is part of the standard hygiene programme.

The different polyolefines are available in several grades and colours for applications including:- chemical plant, vehicle ining, fume ducting, tank linings, cutting boards, laboratory equipment, wear pads, hopper/chute linings, slurry pipe and slide rails.

#### FABRICATION

.D and HD polythene and polypropylene extruded sheets can be vacuum formed. All polyolefines can be joined by hot gas welding techniques using appropriate filler rods. Because of the inert nature of the material no suitable cements are available.

# **Extruded Polypropylene Rod**

Computer Code CZ

Natural colour and beige grey

Price per metre

DIAMETER		DIAMETER	
mm	2	mm	£
8	0.30	105	44.86
10	0.50	110	49.43
12	0.67	115	54.02
15	1.05	120	58.81
18	1.35	125	63.82
20	1.64	130	68.82
25	2.57	135	74.21
30	3.65	140	79.84
35	5.02	145	85.65
40	6.53	150	91.28
45	8.21	160	103.85
50	10.10	165	113.17
55	12.22	170	120.13
60	14.55	180	128.32
65	17.08	190	142.97
70	19.93	200	166.76
75	22.88	225	212.09
80	26.05	250	256.67
85	29.42	300	408.08
90	33.00	350	555.44
95	36.77	400	725.48
100	40.69	500	1,133.56

Standard Lengths - 95mm diameter x 2000mm, 100-300mm diameter x 1000mm, over 300mm diameter x 500mm

# Extruded Polypropylene Box Section

Computer Code CX

Price per metre

Natural	Со-ро	lymer
Size mm		2
36 x 36 x 4		2.72
50 x 50 x 4	•	3.70

Beige Grey	Homopolymer
Size mm	٤
35 x 35 x 3	2.27
50 x 50 x 4	4.29
73 x 53 x 4	7.44

Standard length 5 metres

# **Extruded Polypropylene Sheet**

Copolymer Price per sheet

Computer Code CC

		SHEET	SIZE
Thickness	Colour	1830mm x 1220mm	2440mm x 1220mm
mm		٤	3
1.0	Natural	6.93	9.16
1.5	Natural	10.43	13.90
2.0	Natural	13.75	18.33
2.5	Naturai	17.31	•
3.0	Natural	19.78	26.38
	Industrial Grey	-	27.70
	Beige Grey	-	27.70
	White	-	27.70
	Black	-	27.70
4.5	Natural	29.73	39.66
	Industrial Grey	<b>.</b> -	41.63
	Beige Grey	•	41.63
	White	-	41.63
	Black	•	41.63
6.0	Natural	39.50	52.67
	Industrial Grey	-	55.30
	Beige Grey	. •	55.30
	White		55.30
	Black	•	55.30
9.0	Natural	59.48	79.30
	Industrial Grey	-	83.26
	Beige Grey	•	83.26
	White		83.26
	Black		83.26
12.0	Natural	80.96	107.96
	Beige Grey	•	113.36

Polypropylene welding rod

Computer Code CZ

3mm diameter natural or white £7.52 per kg.

## **Extruded Polypropylene Sheet**

Homopolymer Natural and Heat stabilised beige grey 7032 Price per sheet Computer Code CH

Thickness mm	2000 x 1000 mm £	3000 x 1500 mm
2.0	11.95	26.88
3.0	17.79	40.04
4.0	23.69	53.29
5.0	29.58	66.56
6.0	34.66	77.99
8.0	52.78	118.76
10.0	58.95	132.62
12.0	69.12	155.50
15.0	88.20	198.45
20.0	117.68	264.77
25.0	147.10	330.97
30.0	176.52	397.17

Intermediate gauges can be manufactured subject to a minimum production run.

## Fire Retardant Polypropylene Sheet

Colour: Light Grey RAL 7037

Computer Code CE

Price per sheet

Thickness mm	2000 x 1000 £	2440 x 1220 £	3000 x 1500 £
2	17.30		
3	25.94	38.60	58.19
4	34.59	•	77.83
4.5	•	57.92	•
5	43.23	-	97.39
6	51.89	77.23	116.95
8	69.18	-	155.57
10	86.48	•	194.70
12	103.70	•	•
15	130.21	•	•
20	173.71	-	•
25	249.85	-	•
30	298.90	-	•

Weld rod: 3mm and 4mm diameter and three core £8.40 per kg Round is available in rolls or 7500mm lengths. Three core is available in 1000 or 2000mm lengths.

**Computer Code CD** 

# 'Propylex' Extruded Polypropylene Sheet

Copolymer Beige Grey Heat Stabilised has a pin seal emboss on one surface Price per sheet

	2440 x 1220mm			3000 x 1500mm
Thickness	Natural	Grey, Black, White	Beige Grey Heat Stab & Light Blue	Beige Grey Extra Stabilised
mm	£	£	£	£
1.0	10.29	10.68	10.73	•
1.5	15.63	16.22	16.32	•
2.0	20.58	21.37	21.48	•
2.5	25.92	26.91	27.05	•
3.0	29.54	30.71	30.89	46.70
4.5	44.50	46.28	46.53	70.34
6.0	59.09	61.45	61.79	93.40
9.0	89.00	92.56	93.06	140.68
12.0	121.03	125.76	126.43	191.12

Weld rod round 3mm and 4mm diameter: £7.23 per kg

# Pressed Polypropylene Block

Computer Code CG

Sheets are planed on both surfaces Price per sheet

Thickness	Natural .		Beige Grey H	eat Stabilised
	2000 x 1000mm	4000 x 2000mm	2000 x 1000mm	4000 x 2000mm
mm	3	2	2	2
12	74.78	-	78.18	•
15	91.26	• .	97.72	•
20	122.52	490.08	127.42	527.47
25	156.46	625.84	159.63	661.00
30 -	188.18	752.70	195.52	809.57
35	227.91	911.60	236.86	980.94
40	275.59	. 1,102.34	287.10	1,188.47
50	376.07	1,504.29	406.56	1,683.67
60	431.28	1,725.11	487.87	1,951.50
75	745.5R	2,982.30	776.40	3,105.61
100	1,274.00		1,333.13	



## 'Propylex' Extruded Polypropylene Sheet

Homopolymer Sheet size 2000 x 1000mm Price per sheet Computer Code CD

Thickness	Natural	Beige
<u>mm</u> .	109.20	109.20
25	136.50	136.50

## 'Celmar' Polypropylene/Polyester Fabric Laminate

Colours: Charcoal Grey, White, Beige Grey Extra Stabilised

Sheet size: 2440 x 1220mm

Price per sheet

Computer Code CF Roll width 1220mm Price per 30 metre roll

Thickness	Up to 15 sheets	16-49 sheets	50 sheets plus	1 roll
mm	2	2	£	£
2.0	32.51	29.50	28.30	399.82
3.0	44.39	40.00	38.25	545.79
4.0	56.29	50.53	48.23	692.14
6.0	83.27	74.75	71.33	•
8.0	110.25	98.96	94.44	•

## 'Corthene' - Low Density Polythene Sheet

Natural Computer Code LH

Price per sheet 2440mm x 1220mm

Thickness mm	3
1.5	14.06
3.0	25.78
4.5	38.62
6.0	50.30
9.0	77.28

Weld rod: round 3mm diameter natural £6.80 per kg

# Handles and Hinges

Price each

Computer Code CX

		Polypropylene	High Density Polythene
		Light Grey	Black
Handles	Length 270mm	£9.95	£9.95
	Height 85mm		
Hinges	Length 160mm	£14.95	£14.95
	WidthoOmm	!	

# UHMW (Ultra High Molecular Weight Polyethylene) Grade 1000 Rod

Natural and Grey Lengths of 1000mm Price per metre

DIAMETER	
mm	3
10.0	0.54
15.0	1.21
20.0	2.15
25.0	3.36
30.0	4.83
40.0	8.59
50.0	13.42
60.0	19.34
70.0	26.32
80.0	34.38
90.0	43.51
100.0	53.71
110.0	64.99
120.0	77.35
130.0	90.77
140.0	105.28
150.0	120.85
160.0	137.50
170.0	155.23
180.0	174.03
190.0	193.90
200.0	214.65
250.0	335.70
300.0*	483.41
350.0*	657.98
400.0*	859.40
500.0*	1,342.81

<sup>\*</sup> Available in grey only

# UHMW (Ultra High Molecular Weight Polyethylene) Grade 1000 Sheet

Press moulded with close tolerance planed finish

Size 2000mm x 1000mm nominal (due to the process of manufacture, sheets in gauges 1m m to 10mm inc-may be undersize)

Price per sheet

THICKNESS mm	£	THICKNESS mm	£
1.0	16.05	20.0	250.97
2.0	38.52	25.0	312.92
3.0	41.94	30.0	374.23
4.0	56.23	35.0	411.68
5.0	61.99	40.0	472.03
6.0	77.04	50.0	587.70
8.0	103.79	60.0	611.70
10.0	135.09	70.0	728.65
12.0	161.84	80.0	953.21
15.0	194.26	90.0	1,273.14
		100.0	1,423.37

Sheets up to 6000mm x 1000mm size and 150mm thickness are produced. Special dimensions can be manufactured by a welding process to give sheets 2000mm wide in any length and blocks up to 500mm thickness.

In addition to natural, the standard colour range is: black, green, grey, brown, orange, red, blue and yellow. These colours are available for thicknesses from 10mm up and for a minimum order quantity of 1 tonne. Antistatic grade is available in black only.

# HMW (High Molecular Weight Polyethylene) Grade 500

Natural Colour Price per sheet

Extruded

THICKNESS mm	2000x1000mm £	3000x1500mm £
1	7.78	-
2	15.56	-
3	23.31	-
4	31.12	69.77
5	38.77	86.96
6	46.40	104.15
8	61.68	138.58
10	85.95	193.19
12	96.34	•
15	120.33	-
20	160.32	-

THICKNESS mm	2000x1000mm £	4000x2000mm £
10	92.75	•
12	108.81	450.19
15	136.16	563.26
20	175.05	724.10
25	218.53	904.30
40	349.69	1,447.29
50	453.51	1,875.41
80	753.48	3,119.40
100	1,053.73	•

# High Density Polythene Rod

Natural or Black Price per metre

DIAMETER		DIAMETER	
mm	2	mm	3
8.0	0.28	105.0	49.29
10.0	0.54	110.0	54.13
12.0	0.68	115.0	58.91
15.0	1.11	120.0	64.41
18.0	1.48	125.0	72.38
20.0	1.86	130.0	78.29
25.0	2.93	135.0	83.38
30.0	4.10	140.0	87.53
35.0	5.79	145.0	94.05
40.0	7.15	150.0	102.71
45.0	9.04	160.0	118.60
50.0	11.16	165.0	122.15
55.0	13.45	170.0	128.86
60.0	16.02	180.0	142.62
65.0	18.77 .	190.0	161.26
70.0	21.75	200.0	180.56
75.0	25.13	225.0	229.14
80.0	28.51 ·	250.0	278.04
85.0	32.29	300.0	451.69
90.0	36.12	350.0	609.51
95.0	40.35	400.0	793.57
100.0	44.59	500.0	1,514.86



# **High Density Polythene Sheet**

Natural and Black Price per sheet Extruded

THICKNESS mm	2000 x 1000mm	3000 x 1500mm £	4000 x 2000mm £
0.5	4.94	•	•
0.8	5.81	•	•
1.0	7.21	•	-
1.5	10.40	•	-
2.0	14.42	•	•
3.0	21.63	48.67	. •
4.0	28.84	• .	•
<b>5.0</b>	36.05	•	•
6.0	43.20	97.20	172.79
8.0	57.55	. <del>-</del>	152.26
10.0	71.90	161.78	<b>2</b> 87.62
12.0	86.17	193.89	344.69
15.0	112.69	253.54	450.74
20.0	150.00	344.57	612.56
25.0	176.17	396.39	704.68
30.0	212.12	477.28	
40.0	307.34	•	
50.0	383.54	•	-

#### Pressed

THICKNESS	2000 x 1000mm	4120 x 2010mm
mm	2	3
40.0	359.74	1556.24
50.0	477.20	2064.38
60.0	504.90	2184.21
70.0	591.06	2556.91
80.0	675.50	2922.20
90.0	852.02	-
· 100.0	946.70	-
110.0	1272.78	-
120.0	1388.49	-
*140.0	1723.09	

<sup>\*</sup> Black only

Wel's rod natural 3mm ains 4mm diameter Available in colls or 1700mm lengths £7.80 kg

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REGENEET!

